

Since the foregoing features of step d) are apparently neither disclosed nor suggested by either Weiss, et al, or Henley, et al, or indeed by the A.P.A. it is respectfully submitted that Weiss, et al, and Henley, et al, cannot establish a case of *prima facie* obviousness of the amended method claims 1, 2, and 4 to 14.

Furthermore regarding the particular embodiment in which deflection of light is detected in order to detect a fault in the transparent material and in which a ratio of deflection signal to scattered light signal to determine fault type, neither Weiss, et al, nor Henley, et al, detect deflection of light. Applicants' measure deflection of the light of the first light beam by dividing the first light source into two parts that each produce light of a different wavelength and measuring changes in detector voltages due to changes in intensity of the two different wavelengths (see page 13, line 11 and following of the applicants' specification). For example, Weiss, et al, simply measure changes in light intensity at their detectors as the glass sheet is conveyed through the light beams as shown in fig. 4 and described in column 6, line 47 and following. According to Henley, et al, their CCD camera detectors measure intensity (see figs. 6 and 8 and the disclosure at column 8, line 56 and following).

The applicants' deflection method of detecting a fault and determining its type is neither disclosed nor suggested by either Weiss, et al, and/or Henley, et al.

2. Apparatus Claims

Claim 15 has been amended to claim an apparatus in which the first radiation source is divided into two parts. This is an essential feature that

provides the basis for the deflection method described above in connection with the method claims in which the two parts of the first radiation source produce light with two different intensities in accordance with amended claim 16.

The first radiation source is divided into two parts producing different radiation in the case of the applicants' invention in order to perform the deflection method for detecting the fault. Weiss, et al, does not suggest this sort of division of the first radiation source into two parts for this purpose. However Weiss, et al, do disclose dividing their radiation sources into two parts in order to widen the inspected field, as disclosed in column 6, line 15 and following. Henley, et al, do not disclose dividing their two radiation sources.

Hence Weiss, et al, and Henley, et al, do not disclose or suggest the essential feature of the applicants' inventive apparatus, namely that the first radiation source is divided into two parts that generate light of different wavelengths so that deflection can be detected to detect a fault or to determine fault type.

In an advantageous embodiment the first radiation source can be divided into two pulsed LEDs that produce light pulses at different frequencies according to claims 16 and 17 and the description on page 17, line 19 and following of applicants' originally filed specification. This permits convenient detection of deflection of light from a two part first radiation source.

In an especially convenient embodiment of the apparatus claimed in claim 24 the apparatus includes an electronic device for controlling the first radiation source and the second radiation source so that the first radiation source and the

second radiation source emits time-shifted radiation. Because of this feature only a single detector is required for detection of the light signals produced by passing light from the first radiation source and the second radiation source through the glass sheets, as explained on page 12, line 17 to page 13, line 6, of applicants' specification.

The Office Action cites column 5, lines 32 to 43, as providing a basis for the obviousness rejection of claim 24 regarding the time-shifting of the emission from the first radiation source and the second radiation source. However this generic disclosure regarding computer analysis of the image information from the cameras discloses continuous analysis and recording of a continuous signal from the detectors (see column 5, lines 40 to 43). If it suggests anything it suggests that the radiation sources or light sources are not time-shifted but that they emit light simultaneously and continuously.

For the foregoing reasons and because of changes in claims 1 and 15 withdrawal of the rejection of claims 1 to 11, 13, 15, and 18 to 26 as obvious under 35 U.S.C. 103 (a) over Weiss, et al (U.S. Patent 6,437,357 B1), in view of Henley, et al (U.S. Patent 5,790,247), is respectfully requested.

It is respectfully submitted that the admitted prior art does not disclose or suggest the modifications of the subject matter of main method claim 1 and main apparatus claim 15 that are necessary to arrive at the inventions claimed in these two claims.

For the foregoing reasons it is respectfully submitted that claims 1 to 11, 13, 15, and 18 to 26 should not be rejected as obvious under 35 U.S.C. 103 (a)